

Duke NSCOR: Lung Cancer Risk from HZE Ions

Kirsch DG, Onaitis MW, Stripp BR.

The Duke NSCOR utilizes sophisticated mouse genetics to study the role of the tumor suppressor p53 and cell of origin on lung cancer development following low LET radiation and HZE particles. To gain new insights into the risks of lung cancer from HZE particles, three projects are utilizing complimentary experimental approaches to study the impact of radiation on lung epithelial cells at both the cellular level and at the level of tumor development. We will present our on-going results studying lung cancer development in mouse models with oncogenic K-ras or with deletion of tumor suppressors, such as Rb and p53. We will also present our data on the impact of lung epithelial damage and proliferation in mice following HZE exposure.